Amendments to the claims:

Please replace the section marked claims with the following claim set.

We claim:

1. A wavelength selective filter device comprising:

a light reflector structure comprising first and second resonator units; and

an optical coupler structure coupling light from an input/output of a laser structure to propagate through said light reflector structure,

said light reflector structure being operative to reflect light filtered by said first and second resonator units so as to propagate to said input/output of the laser structure,

said light reflector structure being configured so as to define two optical paths of substantially the same lengths for light propagation in said first and second resonator units from and to the coupler structure.

2. The device of Claim 1, wherein said optical coupler structure comprises:

first and second waveguides; and

a coupling region between an input/output waveguide connected to said input/output of the laser structure and said first and second waveguides,

said optical coupler structure being operative to:

split input light propagating in said input/output waveguide from the laser structure into first and second light portions of substantially equal power;

direct said two light portions to propagate along two spatially separated paths in said first and second waveguides, respectively; and

combine light coming from said two paths to propagate through said input/output waveguide to the laser structure.

3. The device of Claim 2, wherein said light reflector structure is formed by said first and second resonator units accommodated between said first and second waveguides and optically coupled thereto by first and second spaced-apart coupling regions, respectively, said first and second split light portions thereby entering the light reflector structure in opposite directions, respectively, each of said first and second coupling regions being spaced from said coupling region of the optical coupler substantially the same distance.

4. The device of Claim 3, wherein at least one of said first and second resonator units comprises a single closed-loop resonator.

5. The device of Claim 3, wherein said first and second resonator units accommodated between said first and second waveguides are accommodated in a cascade-like fashion between said first and second waveguides.

6. The device of Claim 3, further comprising a light combining waveguide structure configured and oriented with respect to said first and second resonator units so as to allow light passage from said first resonator unit into said second resonator unit, said first and second resonator units accommodated between said first and second waveguides being optically coupled to each other via said light combining waveguide structure, such that the light coupled from said first resonator unit into said second resonator unit propagates in said second resonator unit in the same direction as it propagated in said first resonator unit.

7. The device of Claim 6, wherein said light combining waveguide structure comprises an open-end waveguide having first and second substantially linear sections within coupling regions associated with said first and second resonator units, respectively, and a curved section.

8. The device of Claim 6, wherein said light combining waveguide structure comprises at least one closed-loop resonator.

9. The device of Claim 6, wherein each of said first and second resonator units comprises at least two closed-loop resonators arranged in a cascaded fashion between the respective one of said first and second waveguides and said light combining waveguide structure.

10. The device of Claim 2, wherein said first and second waveguides are constituted at least partially by said first and second resonator units, said first and second resonator units sharing a common coupling region with the input/output waveguide.

11. The device of Claim 10, wherein said light reflector structure further comprises a light combining waveguide structure arranged so as to define first and second coupling regions to, respectively, said first and resonator units.

12. The device of Claim 11, wherein each of said first and second resonator units comprises at least two closed-loop resonators arranged in a cascade-like fashion between said common coupling region and the respective one of said first and second coupling regions.

13. The device of Claim 11, wherein said light combining waveguide structure comprises an open-end waveguide having substantially linear first and second sections along said first and second coupling regions, respectively, and a curved section.

14. The device of Claim 11, wherein said light combining waveguide structure comprises at least one closed-loop resonator.

15. The device of Claim 1, wherein said light reflector structure further comprises:

an additional waveguide; and

a reflective surface,

said first resonator unit comprising a closed-loop resonator optically coupled to an input/output waveguide connected to said input/output of the laser structure,

said first resonator unit being optically coupled to said additional waveguide,

said second resonator unit being optical coupled to said additional waveguide,

said reflective surface being accommodated in a path of light propagating through said additional waveguide.

16. A wavelength selective filter device comprising:

a light reflector structure comprising at least first and second closed-loop resonators; and

an optical coupler structure coupling light from an input/output of a laser structure to propagate through said light reflector structure,

said light reflector structure being operative to reflect light filtered by said at least first and second closed-loop resonators to propagate to said input/output of the laser structure;

said light reflector structure being configured so as to define two optical paths of substantially the same lengths for light propagation in said at least first and second close loop resonators from and to the coupler structure.

17. A method for processing light output of a gain section in a laser device, the method comprising:

(i) coupling the light output of a gain section to a wavelength selective filter structure comprising at least two closed-loop resonators, so as to select from said light output light of a predetermined wavelength band corresponding to the resonance condition of said filter structure; and

(ii) directing said selected light portions to pass through said filter structure in opposite directions along two optical paths of substantially the same lengths so as to return back into said gain section.

18. The method of Claim 17, wherein said coupling is carried out by providing a coupling region between an input/output waveguide associated with input/output of the gain section and said filter structure.

19. The method of Claim 18, wherein said directing comprises:

splitting the light output at said coupling region into first and second light portions of substantially equal power;

directing them along first and second spatially separated paths to be coupled to first and second resonator units, respectively;

passing first and second light portions coupled to said first and second resonator units, respectively, to said coupling region along, respectively, two optical paths of substantially the same length; and

combining said passed first and second light portions into an output light beam to propagate through the input/output waveguide to the gain section.

20. The method of Claim 18, wherein said directing comprises passing a light portion of the gain section output coupled to said filter structure towards a reflective surface to thereby cause the coupled light propagation back again through the filter structure towards said coupling region.